



# കേരള ഗസറ്റ് KERALA GAZETTE

ആധികാരികമായി പ്രസിദ്ധപ്പെടുത്തുന്നത്  
PUBLISHED BY AUTHORITY

വാല്യം 4 Vol. IV	തിരുവനന്തപുരം, ചൊവ്വ Thiruvananthapuram, Tuesday	2015 മേയ് 12 12th May 2015 1190 മേടം 28 28th Medam 1190 1937 വൈശാഖം 22 22nd Vaisakha 1937	നമ്പർ No.	19
---------------------	---	--	--------------	----

## PART III

### Stores Purchase

#### Police Department

##### TENDER NOTICES

(1)

No. C1-2818/2015/FSL.

21st April 2015.

Sealed tenders are invited for the purchase of "Petroleum Distillation Apparatus" for Forensic Science Laboratory, Thiruvananthapuram, so as to reach this office on or before 12 noon on 19-5-2015. Tender is invited under two bid system (Technical & Financial bid).

Tender No.— 1/15-16.

Name—Petroleum Distillation Apparatus.

Quantity required—1 No.

Approximate Price—` 10 lakhs.

Cost of tender forms—` 2,000+VAT @5%.

Date and time of opening of tender —19-5-2015 at 3 p. m.

##### CONDITIONS

1. The tenders should be superscribed with tender number and details of the items and addressed to the Director, Forensic Science Laboratory, Thiruvananthapuram, Kerala- 695 010 (Tel. No: 0471 2722155). Late tenders will not be accepted. The tenders will be opened at the time mentioned above, in the presence of the tenderers or their authorized representatives (with proof of identity)

who may be present at that time.

2. The tenders should be submitted in two separate parts containing Technical and Financial bids in separate sealed envelopes clearly superscribed and should be put together in a large envelope, all envelopes sealed and superscribed with 'Tender No. and name of item'. If any offer contains technical bids and financial bids together in one envelope, such offers shall be rejected out right. The rate is to be quoted in Indian Money. No advance payment can be made for procuring any of the above items.

3. Opening of tenders :—Technical bids of the offers received with requisite EMD or Bid security with samples will be opened on 19-5-2015 at 3 p.m. in the presence of the representatives of the firms who may be present at that time. All tenders received without EMD will be rejected outright. The technical bids will be evaluated by a Technical Evaluation Committee and those that do not conform to the specifications will be rejected. The financial bids of the technically qualified tenderers only will be considered for opening at a later date. The date for opening of financial bids will be intimated to the concerned suppliers via e-mail. Unopened financial bids of the technically disqualified bidders shall be returned to them. All prices quoted should be inclusive of all levies and taxes. Customs duty if any should be mentioned specifically.

4. All the tenderers who quoted for the supply of above equipments are required to be ready for demonstration of equipments on 22-5-2015 at 11 a. m. at Forensic Science Laboratory, Tvpm.

5. Intending tenderers may, on application to the Director, Forensic Science Laboratory, Kerala obtain requisite tender forms on which the tenders should be submitted or download the tender forms from the Kerala Police website [www.keralapolice.gov.in](http://www.keralapolice.gov.in). The tenderers who download forms should submit the required tender value as a Demand Draft along with the tender.

6. Earnest Money Deposit (EMD) should be furnished along with the Tender. EMD may be submitted either in crossed Bank Drafts/Treasury Savings Bank Deposits/ Government Promissory notes/ Bank Guarantee or National Saving Certificates drawn in favour of Director, Forensic Science Laboratory, Thiruvananthapuram, Kerala-695 010. The name of the firm and tender number should be mentioned in the reverse side of the EMD and Tender cost. Firms which are exempted from furnishing EMD should produce a copy of relevant authorized document for verification. Without EMD, the tenders will be rejected.

7. Intending Tenderers also shall include charges for installation (of technical items), training of officers and on-site support for at least for 3 years as warranty. The charges for AMC/ATS for a period of 3 years thereafter may be incorporated in the Tenders separately.

8. Specification of the equipment shall be obtainable from Forensic Science Laboratory during working hours of FSL or from the Police website as mentioned above. The firms should also furnish the detailed specifications, make, brochures, technical support network in Kerala, etc. of the items along with tenders. The Tenders without any detailed specifications of quoted items, brochures, make etc. will be rejected forthwith. The Tenders without separate envelope and not superscribing the Tender number etc. will be rejected.

9. Preference will be given to the products submitted by the manufacturer of their authorised dealers having authorisation from the original equipment manufacturer. Similarly preference will be given to the Tenderers having experience of supplying similar/same items to Government Departments or Organisations, for which the tenderer has to be produce proof of purchase/installation/ satisfaction of the customer.

10. In the case of Foreign Equipments, the rates are to be quoted in Indian Rupees also. Preference will be given to those who are ready to supply the item without opening Letter of credit. Ordinarily, no advance payment will be made for procuring any of the above items. In case, advance payment has to be made, a clear case has to be made out by the Tenderer. However this will be only in extraordinary circumstances.

11. As the equipment is urgently required, the selected bidder will have to supply the item without loss of time, preferably within one month. In case there is any delay in supplying the items due to any pressing circumstances, the Tenderers must cite adequate, justifiable grounds in writings.

12. Samples will have to be submitted free of cost whenever necessary, which would be returned only after supply is effected. The firms should be ready to show live demonstration of technical equipments at their own risk and cost.

13. Police Department is not liable to send any individual communication. Police Department is not responsible to return the samples after verification. The date of opening of the Financial bid will be communicated to the firms by e- mail. The firms should provide correct mail address for further communication. Any clarification/ doubts regarding the specification or related matters pertaining to the items tendered may be got cleared through Manager FSL, C1 section (Phone: 0471 2722155) or Director, FSL (0471 - 2721533).

14. The Director, Forensic Science Laboratory is empowered to reject any tender without assigning any reason.

#### **Specification of Petroleum Distillation Unit (Tender No. 1/15-16)**

- Instrument should be fully automatic Mini - Distillation analyzer according to ASTM D7344 latest test method for the distillation of gasoline, diesel fuel, spirits, naphtha's, bio fuels, aromatics, organic liquids, narrow boiling products, contaminated or blended sample and solvents (group 0 - 4)
- The supplier should have installed and maintaining themselves at least one working units of similar model from same manufacturer at any Forensic Science Laboratories across India.
- It should be True atmospheric distillation with a small, portable and rugged analyzer Instrument should have excellent correlation to STM D 86 (ISO 3405, IP 123), ASTM 850 with precision as requested by ASTM D 86 method.
- It should confirms and performs exclusively to ASTM D7344 latest method.
- It should have Automatic flow correction and cooling facility.
- Instrument should be of highest safety without necessity of fire extinguisher and operator bias.
- It should have accurate volume detection facility by using optical meniscus detector.

- It should have 20 different pre-installed programs for each distillation groups (0 - 4).
- It should be facilitated with Disposable metal sample cups without any fragile glass parts.
- It should have Built- in sensor for automatic barometric correction.
- It should have Built- in balance for precise residual determination.
- It should facilitate with large memory for custom made programs.
- Instrument should have fixed position of the built-in NiCr/Ni thermocouple to ensure a correct vapour temperature recording.
- Instrument should have Fast & easy operation with automatic sample introduction and cleaning facility.
- Instrument should be built such that No manual sample preparation, like chilling or closing is required.
- Instrument should measure unknown samples without programming of test conditions or prior distillation knowledge of samples is required.
- It should be Stand alone analyzer with built -in Peltier temperature control system.
- It should have measuring sample volume of 6 ml with short turnaround measuring time of 15 minutes (light samples) and should perform fast heating.
- Instrument should be precise for laboratory use and robust for field applications. (mobile laboratories).
- It should have temperature range from 0 to 400°C (752° F)
- It should have temperature resolution of  $\pm 0.1^\circ \text{C}$ .
- It should have  $\pm 0.003\text{g}$  accuracy for the built- in balance.
- Instrument should have Rinsing sample volume of 15 ml.
- It should have built - in large memory > 120 measurements stored, virtually unlimited data storage via USB flash device.
- It should have RS 232 interfaces for printer and PC.
- It should have power supply of 230 V AC:50/60 Hz with 200 W.
- Pure reference samples (standard) should be supplied along with distillation apparatus.
- The firm should provide 3 years warranty from the date of installation free of cost.

(2)

No. C1-2819/2015/FSL.

21st April 2015.

Sealed tenders are invited for the purchase of "Rotary Evaporator" for Forensic Science Laboratory, Thiruvananthapuram, so as to reach this office on or before 12 Noon on 19-5-2015. Tender is invited under two bid system (Technical & Financial bid).

Tender No. and Name— 2/15-16—Rotary Evaporator

Quantity required—3 Nos.

Approximate Price—` 3 lakh.

Cost of tender form—` 600+VAT @ 5%.

Date and time of opening tender —19-5-2015 at 3 p. m.

#### CONDITIONS

1. The tenders should be superscribed with tender number and details of the items and addressed to the Director, Forensic Science Laboratory, Thiruvananthapuram, Kerala- 695 010 (Tel. No. 0471 2722155). Late tenders will not be accepted. The tenders will be opened at the time mentioned above, in the presence of the tenderers or their authorized representatives (with proof of identity) who may be present at that time.

2. The tenders should be submitted in two separate parts containing Technical and Financial bids in separate sealed envelopes clearly superscribed and should be put together in a large envelope, all envelopes sealed and superscribed with 'Tender No. and name of item'. If any offer contains technical bids and financial bids together in one envelope, such offers shall be rejected outright. The rate is to be quoted in Indian Money. No advance payment can be made for procuring any of the above items.

3. Opening of tenders :—Technical bids of the offers received with requisite EMD or Bid security with samples will be opened on 19-5-2015 at 3 p.m. in the presence of the representatives of the firms who may be present at that time. All tenders received without EMD will be rejected outright. The technical bids will be evaluated by a Technical Evaluation Committee and those that do not conform to the specifications will be rejected. The financial bids of the technically qualified tenderers only will be considered for opening at a later date. The date for opening of financial bids will be intimated to the concerned suppliers via e-mail. Unopened financial bids of the technically disqualified bidders shall be returned to them. All prices quoted should be inclusive of all levies and taxes. Customs duty if any should be mentioned specifically.

4. All the tenderers who quoted for the supply of above equipments are required to be ready for demonstration of equipments on 22-5-2015 at 11 a. m. at Forensic Science Laboratory, Tvpm.

5. Intending tenderers may, on application to the Director, Forensic Science Laboratory, Kerala obtain requisite tender forms on which the tenders should be submitted or download the tender forms from the Kerala Police website [www.keralapolice.gov.in](http://www.keralapolice.gov.in). The tenderers who download forms should submit the required tender value as a Demand Draft along with the tender.

6. Earnest Money Deposit (EMD) should be furnished along with the tender. EMD may be submitted either in crossed Bank Drafts/Treasury Savings Bank Deposits/ Government Promissory Notes/ Bank Guarantee or National Saving Certificates drawn in favour of Director, Forensic Science Laboratory, Thiruvananthapuram, Kerala-695 010. The name of the firm and tender number should be mentioned in the reverse side of the EMD and Tender cost. Firms which are exempted from furnishing EMD should produce a copy of relevant authorized document for verification. Without EMD, the tenders will be rejected.

7. Intending tenderers also shall include charges for installation (of technical items), training of officers and on- site support for at least for 3 years as warranty. The charges for AMC/ATS for a period of 3 years thereafter may be incorporated in the tenders separately.

8. Specification of the equipment shall be obtainable from Forensic Science Laboratory during working hours of FSL or from the Police website as mentioned above. The firms should also furnish the detailed specifications, make, brochures, technical support network in Kerala, etc. of the items along with tenders. The tenders without any detailed specifications of quoted items, brochures, make etc. will be rejected forthwith. The tenders without separate envelope and not superscribing the Tender number etc. will be rejected.

9. Preference will be given to the products submitted by the manufacturer of their authorised dealers having authorisation from the original equipment manufacturer. Similarly preference will be given to the tenderers having experience of supplying similar/same items to Government Departments or Organisations, for which the tenderer has to be produce proof of purchase/installation/ satisfaction of the customer.

10. In the case of Foreign Equipments, the rates are to be quoted in Indian Rupees also. Preference will be given to those who are ready to supply the item without opening Letter of Credit. Ordinarily, no advance payment will be made for procuring any of the above items. In case, advance payment has to be made, a clear case has to be made out by the tenderer. However this will be only in extraordinary circumstances.

11. As the equipment is urgently required, the selected bidder will have to supply the item without loss of time, preferably within one month. In case there is any delay in supplying the items due to any pressing circumstances, the tenderers must cite adequate, justifiable grounds in writings.

12. Samples will have to be submitted free of cost whenever necessary, which would be returned only after Supply is effected. The firms should be ready to show live demonstration of technical equipments at their own risk and cost.

13. Police Department is not liable to send any individual communication. Police Department is not responsible to return the samples after verification. The date of opening of the Financial bid will be communicated to the firms by e-mail. The firms should provide correct mail address for further communication. Any clarification/doubts regarding the specification or related matters pertaining to the items tendered may be got cleared through Manager FSL, C1 section (Phone: 0471 2722155) or Director, FSL (0471 - 2721533).

14. The Director, Forensic Science Laboratory is empowered to reject any tender without assigning any reason.

#### **Specification of Rotary Evaporator (Tender No. 2/15-16)**

1. Speed	—	20 – 280 rpm.
2. Capacity of Evaporating flask size range	—	250 ml., 500 ml. & 1000 ml.
3. Capacity of Receiving flask	—	1000 ml.
4. Type of Heating bath	—	Internal heating water bath with digital temperature control
5. Power of heating bath	—	1500W
6. Height adjustment of Heating bath	—	110 mm.
7. Evaporation efficiency	—	1.2 L/hr.
8. Lift type	—	Automatic lifting
9. Controlled temperature range	—	20 – 95 C
10. Stroke distance	—	150mm (+100mm extendable)
11. Temperature regulation accuracy	—	+ 2 C
12. Protection Class	—	IP21
13. Power supply	—	220 – 240 V/50 Hz
14. Vacuum Pump	—	Membrane free chemical resistant
15. Suction capacity	—	1.5m <sup>3</sup> /h
16. Applicable capacity of Rotary Evaporator & Glass Evaporator	—	2L – 5 L
17. Ultimate Vacuum level	—	Less than 10 mbar
18. Power	—	180
19. Warranty	—	3 years, from the date of installation free of cost.

(3)

No. C1-2820/2015/FSL.

21st April 2015.

Sealed tenders are invited for the purchase of "Millipore Water Purification" for Forensic Science Laboratory, Thiruvananthapuram so as to reach this office on or before 12 Noon on 19-5-2015. Tender is invited under two bid system (Technical & Financial bid).

Tender No. and Name— 3/15-16—Millipore Water Purification System.

Quantity required—1 No.

Approximate Price—` 10 lakhs.

Cost of tender forms—` 2,000+VAT @5%.

Date and time of opening of tender —19-5-2015 at 3 p. m.

#### CONDITIONS

1. The tenders should be superscribed with tender number and details of the items and addressed to the Director, Forensic Science Laboratory, Thiruvananthapuram, Kerala- 695 010 (Tel. No: 0471 2722155). Late tenders will not be accepted. The tenders will be opened at the time mentioned above, in the presence of the tenderers or their authorized representatives (with proof of identity) who may be present at that time.

2. The tenders should be submitted in two separate parts containing Technical and Financial bids in separate sealed envelopes clearly superscribed and should be put together in a large envelope, all envelopes sealed and superscribed with 'Tender No. and name of item'. If any offer contains technical bids and financial bids together in one envelope, such offers shall be rejected outright. The rate is to be quoted in Indian Money. No advance payment can be made for procuring any of the above items.

3. Opening of tenders :—Technical bids of the offers received with requisite EMD or Bid security with samples will be opened on 19-5-2015 at 3 p.m. in the presence of the representatives of the firms who may be present at that time. All tenders received without EMD will be rejected outright. The technical bids will be evaluated by a Technical Evaluation Committee and those that do not conform to the specifications will be rejected. The financial bids of the technically qualified tenderers only will be considered for opening at a later date. The date for opening of financial bids will be intimated to the concerned suppliers via e-mail. Unopened financial bids of the technically disqualified bidders shall be returned to them. All prices quoted should be inclusive of all levies and taxes. Customs duty if any should be mentioned specifically.

4. All the tenderers who quoted for the supply of above equipments are required to be ready for demonstration of equipments on 22-5-2015 at 11 a. m. at Forensic Science Laboratory, Tvpm.

5. Intending tenderers may, on application to the Director, Forensic Science Laboratory, Kerala obtain requisite tender forms on which the tenders should be submitted or download the tender forms from the Kerala Police website [www.keralapolice.gov.in](http://www.keralapolice.gov.in). The tenderers who download forms should submit the required tender value as a Demand Draft along with the tender.

6. Earnest Money Deposit (EMD) should be furnished along with the tender. EMD may be submitted either in crossed Bank Drafts/Treasury Savings Bank Deposits/ Government Promissory notes/ Bank Guarantee or National Saving Certificates drawn in favour of Director, Forensic Science Laboratory, Thiruvananthapuram, Kerala- 695 010. The name of the firm and tender number should be mentioned in the reverse side of the EMD and tender cost. Firms which are exempted from furnishing EMD should produce a copy of relevant authorized document for verification. Without EMD the tenders will be rejected.

7. Intending tenderers also shall include charges for installation (of technical items), training of officers and on-site support for at least for 3 years as warranty. The charges for AMC/ ATS for a period of 3 years thereafter may be incorporated in the tenders separately.

8. Specification of the equipment shall be obtainable from Forensic Science Laboratory during working hours of FSL or from the Police website as mentioned above. The firms should also furnish the detailed specifications, make, brochures, technical support network in Kerala etc. of the items along with tenders. The tenders without any detailed specifications of quoted items, brochures, make etc. will be rejected forthwith. The tenders without separate envelope and not superscribing the tender number etc. will be rejected.

9. Preference will be given to the products submitted by the manufacturer of their authorised dealers having authorisation from the original equipment manufacturer. Similarly preference will be given to the tenderers having experience of supplying similar/ same items to Government Departments or Organisations, for which the tenderer has to produce proof of purchase/ installation/ satisfaction of the customer.

10. In the case of Foreign Equipments, the rates are to be quoted in Indian Rupees also. Preference will be given to those who are ready to supply the item without opening Letter of credit. Ordinarily, no advance payment will be made for procuring any of the above items. In case, advance payment has to be made, a clear case has to be made out by the tenderer. However this will be only in extraordinary circumstances.

11. As the equipment is urgently required, the selected bidder will have to supply the item without loss of time, preferably within one month. In case there is any delay in supplying the items due to any pressing circumstances, the tenderers must cite adequate, justifiable grounds in writings.



12. Samples will have to be submitted free of cost whenever necessary, which would be returned only after Supply is effected. The firms should be ready to show live demonstration of technical equipments at their own risk and cost.

13. Police Department is not liable to send any individual communication. Police Department is not responsible to return the samples after verification. The date of opening of the Financial bid will be communicated to the firms by e-mail. The firms should provide correct mail address for further communication. Any clarification/ doubts regarding the specification or related matters pertaining to the items tendered may be got cleared through Manager FSL, C1 section (Phone 0471 2722155) or Director, FSL (0471 - 2721533).

14. The Director, Forensic Science Laboratory is empowered to reject any tender without assigning any reason.

**Specification of Water Purification System  
(Tender No. 3/15-16)**

- The system should produce 3 ltr./hr. type 2 grade water.
- Need to include 50 litre reservoir.
- Pretreatment cartridge with antiscaling compound and silver impregnated carbon.
- High flux Thin film composite polyamide RO membrane with 94- 99% rejection.
- Conductivity meter before and after RO to measure the performance of the system.
- Recirculation loop with capillary tube and diaphragm valve.
- Mixed bed ion electro deionization module with auto regeneration.
- Carbon beads at cathode of the EDI module to prevent scaling of the module.
- EDI (Electro De Ionisation) module should not require any softening pre-treatment.
- Permeate divert valve which will divert low quality water to the drain.
- Feed water acceptance upto 2000 micro Siemens conductivity, Fouling Index (SDI) < 12, Total Chlorine < 3 ppm.
- Product Water Specifications  
Resistivity : 15 Meg Ohm. cm (typically 10-15)  
Conductivity : < 0.2 uS/cm (typically 0.067 to 0.10)  
TOC : < 30 ppb  
Silica : 99.9 % rejection  
Water Recovery : 15 - 18 %
- Warranty for 3 years free of cost.

(4)

No. C1-2822/2015/FSL.

21st April 2015.

Sealed tenders are invited for the purchase of "Refracto Meter" for Forensic Science Laboratory, Thiruvananthapuram, so as to reach this office on or before 12 Noon on 19-5-2015. Tender is invited under two bid system (Technical & Financial bid).

Tender No.— 4/15-16.

Name—Refracto Meter.

Quantity required—3 Nos.

Approximate Price—` 23 lakhs.

Cost of tender forms—` 3,500+VAT @ 5%.

Date and time of opening of tender —19-5-2015 at 3 p. m.

**CONDITIONS**

1. The tenders should be superscribed with tender number and details of the items and addressed to the Director, Forensic Science Laboratory, Thiruvananthapuram, Kerala- 695 010 (Tel. No: 0471 2722155). Late tenders will not be accepted. The tenders will be opened at the time mentioned above, in the presence of the tenderers or their authorized representatives (with proof of identity) who may be present at that time.

2. The tenders should be submitted in two separate parts containing Technical and Financial bids in separate sealed envelopes clearly superscribed and should be put together in a large envelope, all envelopes sealed and superscribed with 'Tender No. and name of item'. If any offer contains technical bids and financial bids together in one envelope, such offers shall be rejected outright. The rate is to be quoted in Indian Money. No advance payment can be made for procuring any of the above items.

3. Opening of tenders :—Technical bids of the offers received with requisite EMD or Bid security with samples will be opened on 19-5-2015 at 3 p.m. in the presence of the representatives of the firms who may be present at that time. All tenders received without EMD will be rejected outright. The technical bids will be evaluated by a Technical Evaluation Committee and those that do not conform to the specifications will be rejected. The financial bids of the technically qualified tenderers only will be considered for opening at a later date. The date for opening of financial bids will be intimated to the concerned suppliers via e-mail. Unopened financial bids of the technically disqualified bidders shall be returned to them. All prices quoted should be inclusive of all levies and taxes. Customs duty if any should be mentioned specifically.

4. All the tenderers who quoted for the supply of above equipments are required to be ready for demonstration of equipments on 22-5-2015 at 11 a. m. at Forensic Science Laboratory, Tvpm.

5. Intending tenderers may, on application to the Director, Forensic Science Laboratory, Kerala obtain requisite tender forms on which the tenders should be submitted or download the tender forms from the Kerala Police website [www.keralapolice.gov.in](http://www.keralapolice.gov.in). The tenderers who download forms should submit the required tender value as a Demand Draft along with the tender.

6. Earnest Money Deposit (EMD) should be furnished along with the Tender. EMD may be submitted either in Crossed Bank Drafts/Treasury Savings Bank Deposits/ Government Promissory Notes/ Bank Guarantee or National Saving Certificates drawn in favour of Director, Forensic Science Laboratory, Thiruvananthapuram, Kerala-695 010. The name of the firm and tender number should be mentioned in the reverse side of the EMD and Tender cost. Firms which are exempted from furnishing EMD should produce a copy of relevant authorized document for verification. Without EMD, the tenders will be rejected.

7. Intending tenderers also shall include charges for installation (of technical items), training of officers and on-site support for atleast for 3 years as warranty. The charges for AMC/ATS for a period of 3 years thereafter may be incorporated in the tenders separately.

8. Specification of the equipment shall be obtainable from Forensic Science Laboratory during working hours of FSL or from the Police website as mentioned above. The firms should also furnish the detailed specifications, make, brochures, technical support network in Kerala, etc. of the items along with tenders. The tenders without any detailed specifications of quoted items, brochures, make etc. will be rejected forthwith. The tenders without separate envelope and not superscribing the tender number etc. will be rejected.

9. Preference will be given to the products submitted by the manufacturer of their authorised dealers having authorisation from the original equipment manufacturer. Similarly preference will be given to the tenderers having experience of supplying similar/ same items to Government Departments or Organisations, for which the tenderer has to produce proof of purchase/ installation/ satisfaction of the customer.

10. In the case of Foreign Equipments, the rates are to be quoted in Indian Rupees also. Preference will be given to those who are ready to supply the item without opening Letter of credit. Ordinarily, no advance payment will be made for procuring any of the above items. In case, advance payment has to be made, a clear case has to be made out by the tenderer. However this will be only in extraordinary circumstances.

11. As the equipment is urgently required, the selected bidder will have to supply the item without loss of time, preferably within one month. In case there is any delay in supplying the items due to any pressing circumstances, the tenderers must cite adequate, justifiable grounds in writings.

12. Samples will have to be submitted free of cost whenever necessary, which would be returned only after supply is effected. The firms should be ready to show live demonstration of technical equipments at their own risk and cost.

13. Police Department is not liable to send any individual communication. Police Department is not responsible to return the samples after verification. The date of opening of the Financial bid will be communicated to the firms by e-mail. The firms should provide correct mail address for further communication. Any clarification/ doubts regarding the specification or related matters pertaining to the items tendered may be got cleared through Manager FSL, C1 section (Phone: 0471 2722155) or Director, FSL (0471 - 2721533).

14. The Director, Forensic Science Laboratory is empowered to reject any tender without assigning any reason.

#### **Specification of Refracto Meters (Tender No. 4/15-16)**

1. Design	— Digital, Compact with reliable optics
2. RI measurement range	— 1.30 to 1.72
3. Brix measurement range	— 0 to 100%
4. Temperature control	— Automatic with built in peltier
5. Temperature control range with Peltier	— 10 C to 60 C
6. Resolution (RI)	— 4 digits
7. Accuracy	— High accuracy, 0.2 nm or better
8. Wave length repeatability	— 0.05 nm or better
9. Photometric accuracy	— 0.0015 Abs with NIST SRM 430D or better
10. Photometric repeatability	— 0.005 Abs with NIST SRM 430D or better
11. Warranty	— 3 years free of cost

(5)

No. C1-2824/2015/FSL.

21st April 2015.

Sealed tenders are invited for the purchase of “Visco Meter” for Forensic Science Laboratory, Thiruvananthapuram, so as to reach this office on or before 12 Noon on 19-5-2015. Tender is invited under two bid system (Technical & Financial bid).

Tender No.— 5/15-16.

Name—Visco Meter

Quantity required—3 Nos.

Approximate Price—3 lakhs.

Cost of tender forms—` 600+VAT @5%.

Date and time of opening tender —19-5-2015 at 3 p. m.

#### CONDITIONS

1. The tenders should be superscribed with tender number and details of the items and addressed to the Director, Forensic Science Laboratory, Thiruvananthapuram, Kerala- 695 010 (Tel. No:0471 2722155). Late tenders will not be accepted. The tenders will be opened at the time mentioned above, in the presence of the tenderers or their authorized representatives (with proof of identity) who may be present at that time.

2. The tenders should be submitted in two separate parts containing Technical and Financial bids in separate sealed envelopes clearly superscribed and should be put together in a large envelope, all envelopes sealed and superscribed with ‘Tender No. and name of item’. If any offer contains technical bids and financial bids together in one envelope, such offers shall be rejected out right. The rate is to be quoted in Indian Money. No advance payment can be made for procuring any of the above items.

3. Opening of tenders :—Technical bids of the offers received with requisite EMD or Bid security with samples will be opened on 19-5-2015 at 3 p.m. in the presence of the representatives of the firms who may be present at that time. All tenders received without EMD will be rejected outright. The technical bids will be evaluated by a Technical Evaluation Committee and those that do not conform to the specifications will be rejected. The financial bids of the technically qualified tenderers only will be considered for opening at a later date. The date for opening of financial bids will be intimated to the concerned suppliers via e-mail. Unopened financial bids of the technically disqualified bidders shall be returned to them. All prices quoted should be inclusive of all levies and taxes. Customs duty if any should be mentioned specifically.

4. All the tenderers who quoted for the supply of above equipments are required to be ready for demonstration of equipments on 22-5-2015 at 11 a. m. at Forensic Science Laboratory, Tvp.m.

5. Intending tenderers may, on application to the Director, Forensic Science Laboratory, Kerala obtain requisite tender forms on which the tenders should be submitted or download the tender forms from the Kerala Police website [www.keralapolice.gov.in](http://www.keralapolice.gov.in). The tenderers who download forms should submit the required tender value as a Demand Draft along with the tender.

6. Earnest Money Deposit (EMD) should be furnished along with the Tender. EMD may be submitted either in crossed Bank Drafts/Treasury Savings Bank Deposits/ Government Promissory notes/ Bank Guarantee or National Saving Certificates drawn in favour of Director, Forensic Science Laboratory, Thiruvananthapuram, Kerala- 695 010. The name of the firm and tender number should be mentioned in the reverse side of the EMD and Tender cost. Firms which are exempted from furnishing EMD should produce a copy of relevant authorized document for verification. Without EMD, the tenders will be rejected.

7. Intending Tenderers also shall include charges for installation (of technical items), training of officers and on-site support for atleast for 3 years as warranty. The charges for AMC/ATS for a period of 3 years thereafter may be incorporated in the Tenders separately.

8. Specification of the equipment shall be obtainable from Forensic Science Laboratory during working hours of FSL or from the Police website as mentioned above. The firms should also furnish the detailed specifications, make, brochures, technical support network in Kerala, etc. of the items along with tenders. The tenders without any detailed specifications of quoted items, brochures, make etc. will be rejected forthwith. The tenders without separate envelope and not superscribing the Tender number etc. will be rejected.

9. Preference will be given to the products submitted by the manufacturer of their authorised dealers having authorisation from the original equipment manufacturer. Similarly preference will be given to the tenderers having experience of supplying similar/same items to Government Departments or Organisations, for which the tenderer has to produce proof of purchase/ installation/ satisfaction of the customer.

10. In the case of Foreign Equipments, the rates are to be quoted in Indian Rupees also. Preference will be given to those who are ready to supply the item without opening Letter of credit. Ordinarily, no advance payment will be made for procuring any of the above items. In case, advance payment has to be made, a clear case has to be made out by the tenderer. However this will be only in extraordinary circumstances.



11. As the equipment is urgently required, the selected bidder will have to supply the item without loss of time, preferably within one month. In case there is any delay in supplying the items due to any pressing circumstances, the tenderers must cite adequate, justifiable grounds in writings.

12. Samples will have to be submitted free of cost whenever necessary, which would be returned only after Supply is effected. The firms should be ready to show live demonstration of technical equipments at their own risk and cost.

13. Police Department is not liable to send any individual communication. Police Department is not responsible to return the samples after verification. The date of opening of the Financial bid will be communicated to the firms by e- mail. The firms should provide correct mail address for further communication. Any clarification/ doubts regarding the specification or related matters pertaining to the items tendered may be got cleared through Manager FSL, C1 section (Phone 0471 2722155) or Director, FSL (0471 - 2721533).

14. The Director, Forensic Science Laboratory is empowered to reject any tender without assigning any reason.

#### **Specification of Visco Meter (Tender No. 5/15-16)**

- Viscometer should fulfill requirements of the ASTM D7042 for measurement of Dynamic Viscosity and Density of Liquids (and the Calculation of Kinematic Viscosity).
- One measuring cell should measure viscosity ranging from 0.2 to 20 000 mPa.s/ mm<sup>2</sup>/s and density ranging from 0.65 to 3 g/cm<sup>3</sup>.
- Viscosity and Density should simultaneously get measured from single injection of 3ml sample volume. Typical solvent volume for cleaning and rinsing should not be more than 10 ml.
- Temperature control by built-in solid state thermostat (Peltier elements).
- Maximum Temperature: +105 °C
- Minimum Temp (W/O counter cooling): 20°C below ambient.
- *Display resolution* : Viscosity: 5 significant digits, Density: 0.0001 g/cm<sup>3</sup>, Thermostat: 0.001°C (Display).
- *Repeatability*: Viscosity: + 0.1% of measurement value, Density: + 0.0002 g/cm<sup>3</sup>, Thermostat: + 0.005°C.
- *Reproducibility*:  
Viscosity: + 0.35% of the measured value within the works adjustment range  
Density: + 0.0005 g/cm<sup>3</sup> from 0.65 to 1.5 g/cm<sup>3</sup>.  
Temperature: + 0.02 °C from 15 to 105 °C; +0.05 °C outside this range.

- Instrument should have in-built Data Memory for 384 data sets/ 10 programmable modes.
- Instrument to be supplied with Hot Filling Attachment accessory to keeps prewarmed sample warm in the syringe, sample inlet and outlet and for the cell connection tube.
- This should allow or ease the filling and measuring of samples with a high melting point (80°C; e.g. waxes) or high viscosity at ambient temperature.
- Four, UKAS certified standards, each 100 ml, certified for Viscosity and Density at 20, 40, 60, 80 and 100 Deg. C. should be part of standard delivery.
- Animated Video manual, detailing operation, working and maintenance of the instrument should be supplied.
- Instrument should be compact, light weight bench top device for use in lab and industrial environment with footprint of about 0.25 m<sup>2</sup>.
- Instrument should not consume power more than 100 watt and work with stable power supply from 100 to 240 VAC, 50 to 60 Hz.

Warranty for 3 years from the date of installation free of cost.

(6)

No. C1-2825/2015/FSL.

21st April 2015.

Sealed tenders are invited for the purchase of "Centrifuge with variable rotors" for Forensic Science Laboratory, Thiruvananthapuram, so as to reach this office on or before 12 Noon on 19-5-2015. Tender is invited under two bid system (Technical & Financial bid).

Tender No.—6/15-16.

Name—Centrifuge with variable rotors.

Quantity required—1 No.

Approximate Price—` 1 lakh.

Cost of tender forms—` 400+VAT @5%.

Date and time of opening of tender —19-5-2015 at 3 p. m.

#### **CONDITIONS**

1. The tenders should be superscribed with tender number and details of the items and addressed to the Director, Forensic Science Laboratory, Thiruvananthapuram, Kerala- 695 010 (Tel. No. 0471 2722155). Late tenders will not be accepted. The tenders will be opened at the time mentioned above, in the presence of the tenderers or their authorized representatives (with proof of identity) who may be present at that time.

2. The tenders should be submitted in two separate parts containing Technical and Financial bids in separate sealed envelopes clearly superscribed and should be put together in a large envelope, all envelopes sealed and superscribed with 'Tender No. and name of item'. If any offer contains technical bids and financial bids together in one envelope, such offers shall be rejected outright. The rate is to be quoted in Indian Money. No advance payment can be made for procuring any of the above items.

3. Opening of tenders:—Technical bids of the offers received with requisite EMD or Bid security with samples will be opened on 19-5-2015 at 3 p.m. in the presence of the representatives of the firms who may be present at that time. All tenders received without EMD will be rejected outright. The technical bids will be evaluated by a Technical Evaluation Committee and those that do not conform to the specifications will be rejected. The financial bids of the technically qualified tenderers only will be considered for opening at a later date. The date for opening of financial bids will be intimated to the concerned suppliers via e-mail. Unopened financial bids of the technically disqualified bidders shall be returned to them. All prices quoted should be inclusive of all levies and taxes. Customs duty if any should be mentioned specifically.

4. All the tenderers who quoted for the supply of above equipments are required to be ready for demonstration of equipments on 22-5-2015 at 11 a. m. at Forensic Science Laboratory, Thiruvananthapuram.

5. Intending tenderers may, on application to the Director, Forensic Science Laboratory, Kerala obtain requisite tender forms on which the tenders should be submitted or download the tender forms from the Kerala Police website [www.keralapolice.gov.in](http://www.keralapolice.gov.in). The tenderers who download forms should submit the required tender value as a Demand Draft along with the tender.

6. Earnest Money Deposit (EMD) should be furnished along with the tender. EMD may be submitted either in crossed Bank Drafts/Treasury Savings Bank Deposits/ Government Promissory notes/ Bank Guarantee or National Saving Certificates drawn in favour of Director, Forensic Science Laboratory, Thiruvananthapuram, Kerala-695 010. The name of the firm and tender number should be mentioned in the reverse side of the EMD and tender cost. Firms which are exempted from furnishing EMD should produce a copy of relevant authorized document for verification. Without EMD, the tenders will be rejected.

7. Intending tenderers also shall include charges for installation (of technical items), Training of Officers and on- site support for atleast for 3 years as warranty. The charges for AMC/ATS for a period of 3 years thereafter may be incorporated in the tenders separately.

8. Specification of the equipment shall be obtainable from Forensic Science Laboratory during working hours of FSL or from the Police website as mentioned above. The firms should also furnish the detailed specifications, make, brochures, technical support network in Kerala etc. of the items along with tenders. The tenders without any detailed specifications of quoted items, brochures, make etc. will be rejected forthwith. The tenders without separate envelope and not superscribing the tender number etc. will be rejected.

9. Preference will be given to the products submitted by the manufacturer of their authorised dealers having authorisation from the original equipment manufacturer. Similarly preference will be given to the tenderers having experience of supplying similar/same items to Government Departments or Organisations, for which the tenderer has to produce proof of purchase/installation/satisfaction of the customer.

10. In the case of Foreign Equipments, the rates are to be quoted in Indian Rupees also. Preference will be given to those who are ready to supply the item without opening Letter of credit. Ordinarily, no advance payment will be made for procuring any of the above items. In case, advance payment has to be made, a clear case has to be made out by the tenderer. However this will be only in extraordinary circumstances.

11. As the equipment is urgently required, the selected bidder will have to supply the item without loss of time, preferably within one month. In case there is any delay in supplying the items due to any pressing circumstances, the tenderers must cite adequate, justifiable grounds in writings.

12. Samples will have to be submitted free of cost whenever necessary, which would be returned only after supply is effected. The firms should be ready to show live demonstration of technical equipments at their own risk and cost.

13. Police Department is not liable to send any individual communication. Police Department is not responsible to return the samples after verification. The date of opening of the Financial bid will be communicated to the firms by e-mail. The firms should provide correct mail address for further communication. Any clarification/doubts regarding the specification or related matters pertaining to the items tendered may be got cleared through Manager FSL, C1 section (Phone: 0471 2722155) or Director, FSL (0471-2721533).

14. The Director, Forensic Science Laboratory is empowered to reject any tender without assigning any reason.

**Specification of Centrifuge with variable rotors  
(Tender No. 6/15-16)**

1. Model — Bench top
2. Max. Speed — 12000 rpm
3. Display — Digital display of speed
4. Lock — Safety lid lock
5. Time controller — Mechanical/Digital
6. Capacity — Variable 10, 15, 25, 50 ml
7. Noise — Less noise (Preferably below 60 db)
8. Warranty — 3 years from the date of installation, free of cost,

(7)

No. C1-2826/2015/FSL.

21st April 2015.

Sealed tenders are invited for the purchase of “Automatic TLC Applicator” for Forensic Science Laboratory, Thiruvananthapuram, so as to reach this office on or before 12 Noon on 19-5-2015. Tender is invited under two bid system (Technical & Financial bid).

Tender No.—7/15-16.

Name—Automatic TLC Applicator.

Quantity required—1 No.

Approximate Price—` 1 lakh.

Cost of tender forms—` 400+VAT @ 5%.

Date and time of opening tender —19-5-2015 at 3 p. m.

**CONDITIONS**

1. The tenders should be superscribed with tender number and details of the items and addressed to the Director, Forensic Science Laboratory, Thiruvananthapuram, Kerala- 695 010 (Tel. No. 0471 2722155). Late tenders will not be accepted. The tenders will be opened at the time mentioned above, in the presence of the tenderers or their authorized representatives (with proof of identity) who may be present at that time.

2. The tenders should be submitted in two separate parts containing Technical and Financial bids in separate sealed envelopes clearly superscribed and should be put together in a large envelope, all envelopes sealed and superscribed with ‘Tender No. and name of item’. If any offer contains technical bids and financial bids together in one envelope, such offers shall be rejected outright. The rate is to be quoted in Indian Money. No advance payment can be made for procuring any of the above items.

3. Opening of tenders:—Technical bids of the offers received with requisite EMD or Bid security with samples will be opened on 19-5-2015 at 3 p.m. in the presence of the representatives of the firms who may be present at that time. All tenders received without EMD will be rejected outright. The technical bids will be evaluated by a Technical Evaluation Committee and those that do not conform to the specifications will be rejected. The financial bids of the technically qualified tenderers only will be considered for opening at a later date. The date for opening of financial bids will be intimated to the concerned suppliers via e-mail. Unopened financial bids of the technically disqualified bidders shall be returned to them. All prices quoted should be inclusive of all levies and taxes. Customs duty if any should be mentioned specifically.

4. All the tenderers who quoted for the supply of above equipments are required to be ready for demonstration of equipments on 22-5-2015 at 11 a. m. at Forensic Science Laboratory, Thiruvananthapuram.

5. Intending tenderers may, on application to the Director, Forensic Science Laboratory, Kerala obtain requisite tender forms on which the tenders should be submitted or download the tender forms from the Kerala Police website [www.keralapolice.gov.in](http://www.keralapolice.gov.in). The tenderers who download forms should submit the required tender value as a Demand Draft along with the tender.

6. Earnest Money Deposit (EMD) should be furnished along with the tender. EMD may be submitted either in crossed Bank Drafts/Treasury Savings Bank Deposits/Government Promissory notes/Bank Guarantee or National Saving Certificates drawn in favour of Director, Forensic Science Laboratory, Thiruvananthapuram, Kerala-695 010. The name of the firm and tender number should be mentioned in the reverse side of the EMD and Tender cost. Firms which are exempted from furnishing EMD should produce a copy of relevant authorized document for verification. Without EMD, the tenders will be rejected.

7. Intending tenderers also shall include charges for installation (of technical items), training of Officers and on-site support for at least for 3 years as warranty. The charges for AMC/ATS for a period of 3 years thereafter may be incorporated in the tenders separately.

8. Specification of the equipment shall be obtainable from Forensic Science Laboratory during working hours of FSL or from the Police website as mentioned above. The firms should also furnish the detailed specifications, make, brochures, technical support network in Kerala etc. of the items along with tenders. The tenders without any detailed specifications of quoted items, brochures, make etc. will be rejected forthwith. The tenders without separate envelope and not superscribing the tender number etc. will be rejected.

9. Preference will be given to the products submitted by the manufacturer of their authorised dealers having authorisation from the original equipment manufacturer. Similarly preference will be given to the tenderers having experience of supplying similar/same items to Government Departments or Organisations, for which the tenderer has to be produce proof of purchase/installation/satisfaction of the customer.

10. In the case of Foreign Equipments, the rates are to be quoted in Indian Rupees also. Preference will be given to those who are ready to supply the item without opening Letter of credit. Ordinarily, no advance payment will be made for procuring any of the above items. In case, advance payment has to be made, a clear case has to be made out by the tenderer. However this will be only in extraordinary circumstances.

11. As the equipment is urgently required, the selected bidder will have to supply the item without loss of time, preferably within one month. In case there is any delay in supplying the items due to any pressing circumstances, the tenderers must cite adequate, justifiable grounds in writings.

12. Samples will have to be submitted free of cost whenever necessary, which would be returned only after supply is effected. The firms should be ready to show live demonstration of technical equipments at their own risk and cost.

13. Police Department is not liable to send any individual communication. Police Department is not responsible to return the samples after verification. The date of opening of the Financial bid will be communicated to the firms by e- mail. The firms should provide correct mail address for further communication. Any clarification/doubts regarding the specification or related matters pertaining to the items tendered may be got cleared through Manager FSL, C1 section (phone 0471 2722155) or Director, FSL (0471 - 2721533).

14. The Director, Forensic Science Laboratory is empowered to reject any tender without assigning any reason.

**Specification of Automatic TLC Applicator  
(Tender No. 7/15-16)**

- Automatic motor driven mechanism.
- Suitable for plates: 100×100, 100×200, 200×100, 200×200 mm.
- Coating thickness: 0.05 mm to 2 mm (adjustable).
- Speed: 4 – 10 m/min.
- Warranty : 3 years from the date of installation, free of cost.

(8)

No. C1-2831/2015/FSL.

22nd April 2015.

Sealed tenders are invited for the purchase of “Pensky Martens Flash Point Apparatus” for Forensic Science Laboratory, Thiruvananthapuram, so as to reach this office on or before 12 noon on 23-5-2015. Tender is invited under two bid system (Technical & Financial bid).

Tender No.—8/15-16.

Name—Pensky Martens Flash Point Apparatus.

Quantity required—1 No.

Approximate Price—` 6 lakhs.

Cost of tender forms—` 1,200+VAT @5%.

Date and time of opening of tender —23-5-2015 at 3 p. m.

**CONDITIONS**

1. The tenders should be superscribed with tender number and details of the items and addressed to the Director, Forensic Science Laboratory, Thiruvananthapuram, Kerala- 695 010 (Tel. No. 0471 2722155). Late tenders will not be accepted. The tenders will be opened at the time mentioned above, in the presence of the tenderers or their authorized representatives (with proof of identity) who may be present at that time.

2. The tenders should be submitted in two separate parts containing Technical and Financial bids in separate sealed envelopes clearly superscribed and should be put together in a large envelope, all envelopes sealed and superscribed with ‘Tender No. and name of item’. If any offer contains technical bids and financial bids together in one envelope, such offers shall be rejected out right. The rate is to be quoted in Indian Money. No advance payment can be made for procuring any of the above items.

3. Opening of tenders :—Technical bids of the offers received with requisite EMD or Bid security with samples will be opened on 23-5-2015 at 3 p.m. in the presence of the representatives of the firms who may be present at that time. All tenders received without EMD will be rejected outright. The technical bids will be evaluated by a Technical Evaluation Committee and those that do not conform to the specifications will be rejected. The financial bids of the technically qualified tenderers only will be considered for opening at a later date. The date for opening of financial bids will be intimated to the concerned suppliers via e-mail. Unopened financial bids of the technically disqualified bidders shall be returned to them. All prices quoted should be inclusive of all levies and taxes. Customs duty if any should be mentioned specifically.

4. All the tenderers who quoted for the supply of above equipments are required to be ready for demonstration of equipments on 27-5-2015 at 11 a. m. at Forensic Science Laboratory, Tvpm.

5. Intending tenderers may, on application to the Director, Forensic Science Laboratory, Kerala obtain requisite tender forms on which the tenders should be submitted or download the tender forms from the Kerala Police website [www.keralapolice.gov.in](http://www.keralapolice.gov.in). The tenderers who download forms should submit the required tender value as a Demand Draft along with the tender.

6. Earnest Money Deposit (EMD) should be furnished along with the Tender. EMD may be submitted either in crossed Bank Drafts/Treasury Savings Bank Deposits/Government Promissory Notes/Bank Guarantee or National Saving Certificates drawn in favour of Director, Forensic Science Laboratory, Thiruvananthapuram, Kerala- 695 010. The name of the firm and tender number should be mentioned in the reverse side of the EMD and Tender cost. Firms which are exempted from furnishing EMD should produce a copy of relevant authorized document for verification. Without EMD, the tenders will be rejected.

7. Intending tenderers also shall include charges for installation (of technical items), training of officers and on- site support for at least for 3 years as warranty. The charges for AMC/ATS for a period of 3 years thereafter may be incorporated in the tenders separately.

8. Specification of the equipment shall be obtainable from Forensic Science Laboratory during working hours of FSL or from the Police website as mentioned above. The firms should also furnish the detailed specifications, make, brochures, technical support network in Kerala, etc. of the items along with tenders. The tenders without any detailed specifications of quoted items, brochures, make etc. will be rejected forthwith. The tenders without separate envelope and not superscribing the tender Number etc. will be rejected.

9. Preference will be given to the products submitted by the manufacturer of their authorised dealers having authorisation from the original equipment manufacturer. Similarly preference will be given to the tenderers having experience of supplying similar/same items to Government Departments or Organisations, for which the tenderer has to be produce proof of purchase/installation/ satisfaction of the customer.

10. In the case of Foreign Equipments, the rates are to be quoted in Indian Rupees also. Preference will be given to those who are ready to supply the item without opening Letter of credit. Ordinarily, no advance payment will be made for procuring any of the above items. In case, advance payment has to be made, a clear case has to be made out by the tenderer. However this will be only in extraordinary circumstances.

11. As the equipment is urgently required, the selected bidder will have to supply the item without loss of time, preferably within one month. In case there is any delay in supplying the items due to any pressing circumstances, the tenderers must cite adequate, justifiable grounds in writings.

12. Samples will have to be submitted free of cost whenever necessary, which would be returned only after supply is effected. The firms should be ready to show live demonstration of technical equipments at their own risk and cost.

13. Police Department is not liable to send any individual communication. Police Department is not responsible to return the samples after verification. The date of opening of the Financial bid will be communicated to the firms by e- mail. The firms should provide correct mail address for further communication. Any clarification/doubts regarding the specification or related matters pertaining to the items tendered may be got cleared through Manager FSL, C1 section (Phone 0471 2722155) or Director, FSL (0471 - 2721533).

14. The Director, Forensic Science Laboratory is empowered to reject any tender without assigning any reason.

**Specification of Fully Automated Pensky Martens  
Flash Point Apparatus  
(Tender No. 8/15-16)**

- Instrument should measure Flash Point under ASTM D93, IP 34, NF M07019, ISO 2719, DIN 51758 ,GBT 261,JIS K 2265-3 Methods.
- Instrument should work with Temperature Range of 0 to 410°C.
- Sample cup volume should consists of 75ml range.
- Should Work under Ambient Temperature Range of 15 °C to 30 °C.
- Measurement of sample temperature must be with Pt100 Glass, wiring with a resolution of 0.1°C
- Flash Point detection must be with the help of Thermocouple.
- Ignition source's should be both Magnetic and Electric regulated Igniter.
- Instrument should have Automated Barometric Pressure correction.
- Cooling of heating block must be with the help of Integrated Air Pulsed Fan.
- **Safety Features:**  
Instrument should cut off at overheating at 600 °C measured in the heating block with the audible alarm.



Safety stop Must be available at 0-30°C (Above expected flashpoint).

Ionization detection at no flame condition is to be noticed with Alarm and test must be stop automatically.

Gas Leak detector should be inbuilt in the instrument for gas safety purpose.

Fire Safety must be available with N2 Fire Extinguishing system.

- **Interfaces required:**

Instrument should have HD Colour display and capacitive touch screen for easy and smart operation.

Instrument should be capable of connecting External Printer and USB for results.

Instrument should consists of Connections to, 4USB -1 RS232 -2 LAN and 1 VGA and also must have 64 GB On SSD drive.

- Warranty : 3 years, free of cost.

(9)

No. C1-2833/2015/FSL.

22nd April 2015.

Sealed tenders are invited for the purchase of "Smoke Point Apparatus" for Forensic Science Laboratory, Thiruvananthapuram, so as to reach this office on or before 12 Noon on 23-5-2015. Tender is invited under two bid system (Technical & Financial bid).

Tender No.—9/15-16.

Name—Smoke Point Apparatus.

Quantity required—2 Nos.

Approximate Price—` 20 lakhs.

Cost of tender forms—` 3000+VAT @5%.

Date and time of opening tender—23-5-2015 at 3 p. m.

CONDITIONS

1. The tenders should be superscribed with tender number and details of the items and addressed to the Director, Forensic Science Laboratory, Thiruvananthapuram, Kerala-695 010 (Tel. No. 0471 2722155). Late tenders will not be accepted. The tenders will be opened at the time mentioned above, in the presence of the tenderers or their authorized representatives (with proof of identity) who may be present at that time.

2. The tenders should be submitted in two separate parts containing Technical and Financial bids in separate sealed envelopes clearly superscribed and should be put together in a large envelope, all envelopes sealed and

superscribed with 'Tender No. and name of item'. If any offer contains technical bids and financial bids together in one envelope, such offers shall be rejected out right. The rate is to be quoted in Indian Money. No advance payment can be made for procuring any of the above items.

3. Opening of tenders :—Technical bids of the offers received with requisite EMD or Bid security with samples will be opened on 23-5-2015 at 3 p.m. in the presence of the representatives of the firms who may be present at that time. All tenders received without EMD will be rejected outright. The technical bids will be evaluated by a Technical Evaluation Committee and those that do not conform to the specifications will be rejected. The financial bids of the technically qualified tenderers only will be considered for opening at a later date. The date for opening of financial bids will be intimated to the concerned suppliers via e-mail. Unopened financial bids of the technically disqualified bidders shall be returned to them. All prices quoted should be inclusive of all levies and taxes. Customs duty if any should be mentioned specifically.

4. All the tenderers who quoted for the supply of above equipments are required to be ready for demonstration of equipments on 27-5-2015 at 11 a. m. at Forensic Science Laboratory, Tvpm.

5. Intending tenderers may, on application to the Director, Forensic Science Laboratory, Kerala obtain requisite tender forms on which the tenders should be submitted or download the tender forms from the Kerala Police website [www.keralapolice.gov.in](http://www.keralapolice.gov.in). The tenderers who download forms should submit the required tender value as a Demand Draft along with the tender.

6. Earnest Money Deposit (EMD) should be furnished along with the Tender. EMD may be submitted either in crossed Bank Drafts/Treasury Savings Bank Deposits/ Government Promissory Notes/Bank Guarantee or National Saving Certificates drawn in favour of Director, Forensic Science Laboratory, Thiruvananthapuram, Kerala- 695 010. The name of the firm and tender number should be mentioned in the reverse side of the EMD and Tender cost. Firms which are exempted from furnishing EMD should produce a copy of relevant authorized document for verification. Without EMD, the tenders will be rejected.

7. Intending tenderers also shall include charges for installation (of technical items), training of officers and on- site support for at least for 3 years as warranty. The charges for AMC/ ATS for a period of 3 years thereafter may be incorporated in the tenders separately.

8. Specification of the equipment shall be obtainable from Forensic Science Laboratory during working hours of FSL or from the Police website as mentioned above. The firms should also furnish the detailed specifications, make, brochures, technical support network in Kerala, etc. of the items along with tenders. The tenders without any detailed specifications of quoted items, brochures, make etc. will be rejected forthwith. The tenders without separate envelope and not superscribing the tender number etc. will be rejected.

9. Preference will be given to the products submitted by the manufacturer or their authorised dealers having authorisation from the original equipment manufacturer. Similarly preference will be given to the tenderers having experience of supplying similar/ same items to Government Departments or Organisations, for which the tenderer has to produce proof of purchase/installation/ satisfaction of the customer.

10. In the case of Foreign Equipments, the rates are to be quoted in Indian Rupees also. Preference will be given to those who are ready to supply the item without opening Letter of credit. Ordinarily, no advance payment will be made for procuring any of the above items. In case, advance payment has to be made, a clear case has to be made out by the tenderer. However this will be only in extraordinary circumstances.

11. As the equipment is urgently required, the selected bidder will have to supply the item without loss of time, preferably within one month. In case there is any delay in supplying the items due to any pressing circumstances, the tenderers must cite adequate, justifiable grounds in writings.

12. Samples will have to be submitted free of cost whenever necessary, which would be returned only after Supply is effected. The firms should be ready to show live demonstration of technical equipments at their own risk and cost.

13. Police Department is not liable to send any individual communication. Police Department is not responsible to return the samples after verification. The date of opening of the Financial bid will be communicated to the firms by e- mail. The firms should provide correct mail address for further communication. Any clarification/ doubts regarding the specification or related matters pertaining to the items tendered may be got cleared through Manager, FSL, C1 section (Phone 0471 2722155) or Director, FSL (0471 - 2721533).

14. The Director, Forensic Science Laboratory is empowered to reject any tender without assigning any reason.

#### **Specification of Smoke Point Apparatus (Tender No. 9/15-16)**

- Automatic Smoke Point Analyzer should be able to provide an indication of the relative smoke producing properties of kerosenes and aviation turbine fuels in a diffusion flame as per ASTM D 1322, D 1655, IP 598, DEF STAN 91/91, FTM 791-2107, JIS K2537 including all its related and essential accessories.
- All the Basic Components of automatic smoke point analyzer and its accessories should be as per ASTM D1322 or IP 598 Method.
- Instrument should have automatic Test Flame Visibility by Digital Video Camera connected and associated with Digital imaging technology software to analyze and record the height of the flame.
- Automatic candle displacement system to adjust the height of the flame
- Automatic adjustment of test flame by actuator to attain the height of test flame as per test Method.
- It should have barometric pressure acquisition system to be used for the selection of the calibration values for the correction of the result.
- Instrument should calculate the mean value of the three flame measured heights at the end of test and obtained result should be corrected with appropriate correction factor.
- Instrument should report the final result according to the format specified in the test method and also calibration information should be saved in the test result.
- Total test duration time should be less than 10 minutes.
- Repeatability and Reproducibility should be equal or better than ASTM D1322 test method, automated procedure.
- Resolution of flame height should be 0.1 mm
- It should have LAN facility with 2 USB Ports and one Ethernet port (RJ45) along with one serial port for printer
- Instrument dimensions should be limited to (W x D x H) 330 x 390 x 413 (13"x 15"x 16") and weight should not be greater than 10 kg (22 lb).
- It should have Power supply of 230V-2 A-50/60 Hz.
- Warranty : 3 years, free of cost.

(10)

No. C1-2834/2015/FSL.

22nd April 2015.

Sealed tenders are invited for the purchase of "Pour Point Apparatus" for Forensic Science Laboratory, Thiruvananthapuram, so as to reach this office on or before 12 Noon on 23-5-2015. Tender is invited under two bid system (Technical & Financial bid).

Tender No.—10/15-16.

Name—Pour Point Apparatus.

Quantity required—2 Nos.

Approximate Price—` 18 lakhs.

Cost of tender form—` 2,700 + VAT @ 5%.

Date and time of opening of tender—23-5-2015 at 3 p. m.

#### CONDITIONS

1. The tenders should be superscribed with tender number and details of the items and addressed to the Director, Forensic Science Laboratory, Thiruvananthapuram, Kerala- 695 010 (Tel. No: 0471 2722155). Late tenders will not be accepted. The tenders will be opened at the time mentioned above, in the presence of the tenderers or their authorized representatives (with proof of identity) who may be present at that time.

2. The tenders should be submitted in two separate parts containing Technical and Financial bids in separate sealed envelopes clearly superscribed and should be put together in a large envelope, all envelopes sealed and superscribed with 'Tender No. and Name of item'. If any offer contains technical bids and financial bids together in one envelope, such offers shall be rejected outright. The rate is to be quoted in Indian Money. No advance payment can be made for procuring any of the above items.

3. Opening of tenders :—Technical bids of the offers received with requisite EMD or Bid security with samples will be opened on 23-5-2015 at 3 p.m. in the presence of the representatives of the firms who may be present at that time. All tenders received without EMD will be rejected outright. The technical bids will be evaluated by a Technical Evaluation Committee and those that do not conform to the specifications will be rejected. The financial bids of the technically qualified tenderers only will be considered for opening at a later date. The date for opening of financial bids will be intimated to the concerned suppliers via e-mail. Unopened financial bids of the technically disqualified bidders shall be returned to them. All prices quoted should be inclusive of all levies and taxes. Customs duty if any should be mentioned specifically.

4. All the tenderers who quoted for the supply of above equipments are required to be ready for demonstration of equipments on 27-5-2015 at 11 a. m. at Forensic Science Laboratory, Tvp.m.

5. Intending tenderers may, on application to the Director, Forensic Science Laboratory, Kerala obtain requisite tender forms on which the tenders should be submitted or download the tender forms from the Kerala Police website [www.keralapolice.gov.in](http://www.keralapolice.gov.in). The tenderers who download forms should submit the required tender value as a Demand Draft along with the tender.

6. Earnest Money Deposit (EMD) should be furnished along with the tender. EMD may be submitted either in crossed Bank Drafts/Treasury Savings Bank Deposits/ Government Promissory Notes/ Bank Guarantee or National Saving Certificates drawn in favour of Director, Forensic Science Laboratory, Thiruvananthapuram, Kerala- 695 010. The name of the firm and tender number should be mentioned in the reverse side of the EMD and Tender cost. Firms which are exempted from furnishing EMD should produce a copy of relevant authorized document for verification. Without EMD, the tenders will be rejected.

7. Intending tenderers also shall include charges for installation (of technical items), training of officers and on- site support for at least for 3 years as warranty. The charges for AMC/ ATS for a period of 3 years thereafter may be incorporated in the tenders separately.

8. Specification of the equipment shall be obtainable from Forensic Science Laboratory during working hours of FSL or from the Police website as mentioned above. The firms should also furnish the detailed specifications, make, brochures, technical support network in Kerala, etc. of the items along with tenders. The tenders without any detailed specifications of quoted items, brochures, make etc. will be rejected forthwith. The tenders without separate envelope and not superscribing the tender number etc. will be rejected.

9. Preference will be given to the products submitted by the manufacturer of their authorised dealers having authorisation from the original equipment manufacturer. Similarly preference will be given to the tenderers having experience of supplying similar/same items to Government Departments or Organisations, for which the tenderer has to produce proof of purchase/installation/satisfaction of the customer.

10. In the case of Foreign Equipments, the rates are to be quoted in Indian Rupees also. Preference will be given to those who are ready to supply the item without opening Letter of Credit. Ordinarily, no advance payment will be made for procuring any of the above items. In case, advance payment has to be made, a clear case has to be made out by the tenderer. However this will be only in extraordinary circumstances.

11. As the equipment is urgently required, the selected bidder will have to supply the item without loss of time, preferably within one month. In case there is any delay in supplying the items due to any pressing circumstances, the tenderers must cite adequate, justifiable grounds in writings.

12. Samples will have to be submitted free of cost whenever necessary, which would be returned only after supply is effected. The firms should be ready to show live demonstration of technical equipments at their own risk and cost.

13. Police Department is not liable to send any individual communication. Police Department is not responsible to return the samples after verification. The date of opening of the Financial bid will be communicated to the firms by e- mail. The firms should provide correct mail address for further communication. Any clarification/doubts regarding the specification or related matters pertaining to the items tendered may be got cleared through Manager FSL, C1 section (Phone 0471 2722155) or Director, FSL (0471 - 2721533).

14. The Director, Forensic Science Laboratory is empowered to reject any tender without assigning any reason.

**Specification of Pour Point Apparatus  
(Tender No. 10/15-16)**

- Instrument should measure Pour point under ASTM D 97-D 2500-ISO 3015 & ISO 301 -IP 15 and IP 219 Methods for a Diesel & other petroleum products.
- Pour point detection is to be done with the help of sophisticated Ultrasonic Sensor.
- Temperature range should be from -75 to 51 degC (Lowest temperature depends on the cryostat type)
- Temperature measuring resolution must be 1° C.
- Tilting intervals for every 3° C or 1°C (parametrable) must be visualized.
- Pt 100 Sensor is to be used for sample temperature detection.
- Detection level is to be clearly visualized step by step in every intervals.
- Storage of last test results must be min. 200 in stand alone.
- Maintenance and calibration should be password protected.
- Stand alone machine contains 15 programme files (5 standards and 10 parametrable)

- **Software**

Computer interface through a user friendly software accessible by touch screen.

Connection of external PC by Ethernet cable.

Storage of 200 results in stand alone.

Software must be having very easy access through shortcuts.

Software must be user friendly to use and able to store all the calibration data and reference samples files for comparing with normal user samples.

- Warranty - 3 years, free of cost.

Forensic Science Laboratory,  
Thiruvananthapuram.

DR. K. P. JAYAKUMAR,  
*Director FSL.*